

Easing Transitions

Service Design for Older Adults

Laura Salisbury, Graduate Student

Academic Advisor:

Dr. Claudia B. Rebola , Assistant Professor, School of Industrial Design

Committee Members:

Florian Vollmer, SVP Design, Principal at InReality

Jim Budd, Professor; Chair, School of Industrial Design

School of Industrial Design

Georgia Institute of Technology

247 4th Street NW

Atlanta, GA 30332

404-894-4874 (p)

404-894-3396 (f)

Acknowledgement

For sharing her passion of Design for Healthy Aging and guidance in navigating the thesis process, much thanks goes to Dr. Claudia Rebola. To Florian Vollmer, my thesis may have not been possible without your 7:30am coffee shop reviews, feedback, encouragement and vast knowledge of service design shared each week. And finally, special thanks goes to my family, who without their support I may never have taken the chance to go back to graduate school, follow my passions and take one step towards achieving my dreams.

“There will come a time when you believe everything is finished.
That will be the beginning.”

- Louis L'Amour



01

Introduction p. 6

Defining the Problem
Methodology



02

Research p. 14

Research Plan
Environmental Observation
Resident Interviews
Stakeholder Interviews
Expert Interviews



03

Analyze p. 28

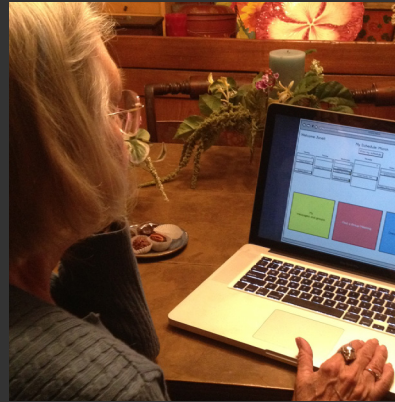
Analysis Process
Defining Meaning
Problem Statement



04

Ideation p. 36

Feedback and Codesign
Mapping the Experience
Exploring Touchpoints



05

Touchpoint Design p. 44

Designing Interactions



06

Final Concept p. 52

Final Touchpoint Design
Service Storyboard
Service Blueprint



01 Introduction

Abstract

The transition into a retirement community for older adults can be a time of great stress, leading to social isolation, loneliness and loss of meaning. To reduce this stress associated with the transition process, a feeling of control is necessary to facilitate openness to new environments and socialization. Through the use of ethnographic research methods such as environmental observation and participant interviews, three themes, 'Feeling of Value', 'Deep Connections' and 'Feeling at Home', were uncovered that defined meaning for residents in the community. A concept that satisfies these themes was then developed through the use of codesign methods and iterative feedback with residents and experts. The purpose of this project is to research and understand how meaning is defined by residents and develop a service that facilitates easy adoption and transition into the retirement community.

Defining the Problem

As the population ages, the number of older adults is expected to increase rapidly to an estimated 71 million by 2030 in the United States (Centers for Disease Control and Prevention, 2007). 80% of older adults in America have a chronic illness and because of this, increasing amounts of older adults are turning to retirement communities. More and more older adults are also choosing to move to independent living communities at an earlier age. These resort like communities simplify living, while offering on-site facilities for socializing and care if needed.

Still, moving to a new unfamiliar community can be stressful. Residents often not only face reduced physical capacity to perform everyday activities, but also loss of close social contact with family, friends and spouses. Studies have shown significant relationships between physical capacity and loneliness in the elderly (Drageset, 2004). In addition, cognitive impairment may cause residents to avoid contact in order to hide their disability

(Holmen, 2002), leading to hastened deterioration of health and social isolation.

Transitioning to the Community

J.M Ellis (2010), describes transitions as events in ones life where major changes require a person to develop alternative ways of seeing their world or an experience. Human beings are constantly in transition throughout their lives. Each of these transitional events result in stress on the body and mind and the transition into a retirement community has been noted as one of the most stressful. Much research has been done on the transition process into retirement communities. Hodgson et al. (2004) found that the first four weeks after relocating to be the most stressful. During this time residents may feel disoriented and depressed.

There is a strong relationship between the preadmission process and how well an older adult adjusts to a retirement community during this initial phase (Brandburg, 2007). Chenitz (1983) defined

basic conditions that must be met in order for older adults to move successfully through adjustment. They are desire to move, legitimate reason to move and voluntary control as it relates to decisions. Without these conditions met, the transition process can last much longer, and there is greater risk of depression and maladaptation.

Once the transition has begun, Brandburg (2007) summarizes the process in four steps: Initial Reaction, Transitional Influences, Adjustment and Acceptance. The Initial Reaction Phase, is marked by emotional response. This phase may leave the older adult feeling overwhelmed, disorganized and with a sense of homelessness. The next two phases, Transitional Influences and Adjustment, work simultaneously to move the older adult towards acceptance. Transitional influences are both the internal characteristics that shape your perception such as personal history and values and the external factors effecting the resident's transition such as basic conditions being met and environmental mesh. These factors effect the adjustment process of forming relationships and transitioning mentally to acceptance of a new living situation (Brandburg, 2007) . Acceptance can be adaptive or maladaptive. Adaptive acceptance is associated with the older adult reflecting on the transition experience in light of personal values and finding meaning in their new life. Maladaptive acceptance can lead to depression, withdrawal, and helplessness (Chenitz, 1983). Because the transition process involves at least two levels of adaptation, behavioral and psychological, the

transition can often take six to twelve months or even longer (Ellis, 2010).

Adapting to a New Life

The Personal Construct Theory proposes that all individuals develop their own personal view of the world and what goes on in it. Consequently, there are an infinite number of ways of making sense of the same reality, event or experience (Ellis, 2010). Due to this, residents each have their own unique way of placing meaning on the events and experiences in their life making it difficult for retirement communities to offer experiences to all residents, that aid in adaptive acceptance of the community. Porter and Clinton (1992) developed a list of adjustment approaches and adjustment influences used by older adults in new retirement communities. Some of these are reframing, fitting in, fitting in by not fitting in, doing one's best and keeping quiet. Though there are common approaches to adjustment, it was concluded that adjustment is a unique experience to each person and giving residents the tools to adjust on their own terms is most important to a successful transition.

Building Relationships

Meaningful social contacts are an important part of healthy aging (Townsend, 1957). Frequent contact with friends is related to low levels of social loneliness (Drageset, 2004). According to Weiss (1973), the provision of 'social integration' is manifested by a network of relationships in which the person shares common interests and social activities (Drageset, 2004). This network

of friends at a similar age to your own, has been shown to reduce social loneliness. These findings re-emphasize the positive effects retirement communities can have on older adults, if the transition and services available support the needs of the resident. Socialization is not necessary though, to prevent loneliness, as humans have different levels of need for social interaction, though retirement community residents who desire more social contact report higher levels of loneliness (Bondevik, Skogsstad, 1996). What is important, is that those who desire social interaction, feel able to attain it.

According to Weiss, six relationship types are needed to prevent loneliness in residents. These six relationship types are: 'attachment' or a relationship where a person gains a sense of safety or security, 'social integration' or a network of relationships of shared interests, 'opportunity for nurturance' or the ability to feel needed by others, 'reassurance of worth' or a relationship where the person's skills and abilities are acknowledged, 'reliable alliance' or someone the resident can count on and 'guidance' or a person who can provide guidance and knowledge (Drageset, 2004). Facilitating these relationships is critical to helping residents achieve their desired level of social interaction and thus a successful transition.

Transition Services

Due to the increasing number of older adults, it has become a growing trend for retirement communities as well as small businesses to offer

senior transition services. Due to the recession, the ability to sell one's house has put additional stress on older adults during this already stressful time in their lives. Much focus has been put on the planning and moving process. Franchises like Caring Transitions, a company that focuses on providing peace of mind for a loved one, offer apartment layout planning, donation and selling of belongings, packing, coordination of the move and even listing of your loved one's home (Minadeo, 2013). Other companies create a complete transition plan to assess finances, estate planning and fixing, cleaning and staging of the home for sale. Once in the retirement community programs that promote socializing such as community wide activities like bingo, movie night and lectures are common. Support groups to specifically help those who may be having a hard time with the retirement community transition as well as those who have been identified as having depression are also available. This focus on the functional problems associated with moving as well as social integration into the community are important but do not fully address the mental transition of acceptance and meaning making on an individual level that are essential to a successful transition.

Much research has been done on the growing strain the aging Baby Boomer population has had on the healthcare system. Interestingly, little focus has been placed on how current retirement communities can facilitate successful transitions and reduce longterm loneliness among residents through design interventions.

Methodology

To guide my thesis exploration I created a four part design process (fig. 1.1) starting with research, then analysis, development and finally communication of the final concept.

Research

To attain a holistic understanding of the problems facing older adults during the transition process, both observation and interviewing methods were utilized at two retirement communities. Observational research was used to understand the context surrounding the resident's daily life. Facilities available to the residents, how well they were maintained and how often they were used by residents were paid close attention to. Patterns of movement by residents and the type of activities that brought them out in the community were also of interest. Residents, Service Coordinators from each retirement community and experts were interviewed to dig deeper into the lives and needs of the residents. The outcome of this phase was an Environment and Touchpoint inventory and personas representing the residents.

Analyze

During the analysis phase interviews were transcribed into succinct statements and placed on statement cards. These cards were then sorted into piles that represent different themes from the interviews. These themes were then clustered by similar themes to draw out insights into how meaning is defined by the residents.

Develop

Both a design for the service and it's digital touchpoint were designed during the development phase. Each phase began with ideation and quickly moved to feedback from residents and experts. In the design of the service, codesign with the residents was utilized by presenting design ideas and asking residents what they liked and did not like as well as providing an opportunity for residents to suggest their own ideas. This process was repeated until the final design was created. To develop the digital touchpoint, feedback from both residents and interaction design experts were utilized. A clickable prototype was then created once the design had been vetted and tested with residents for usability.

Design

Once the service and digital touchpoint had been designed a service blueprint and visual design for the touchpoint was created. The service blueprint communicates in detail how the service would be implemented and can be used as a roadmap for future retirement communities. The visual design was developed with consideration for the needs of older adults and communicates how the service would look to future users.

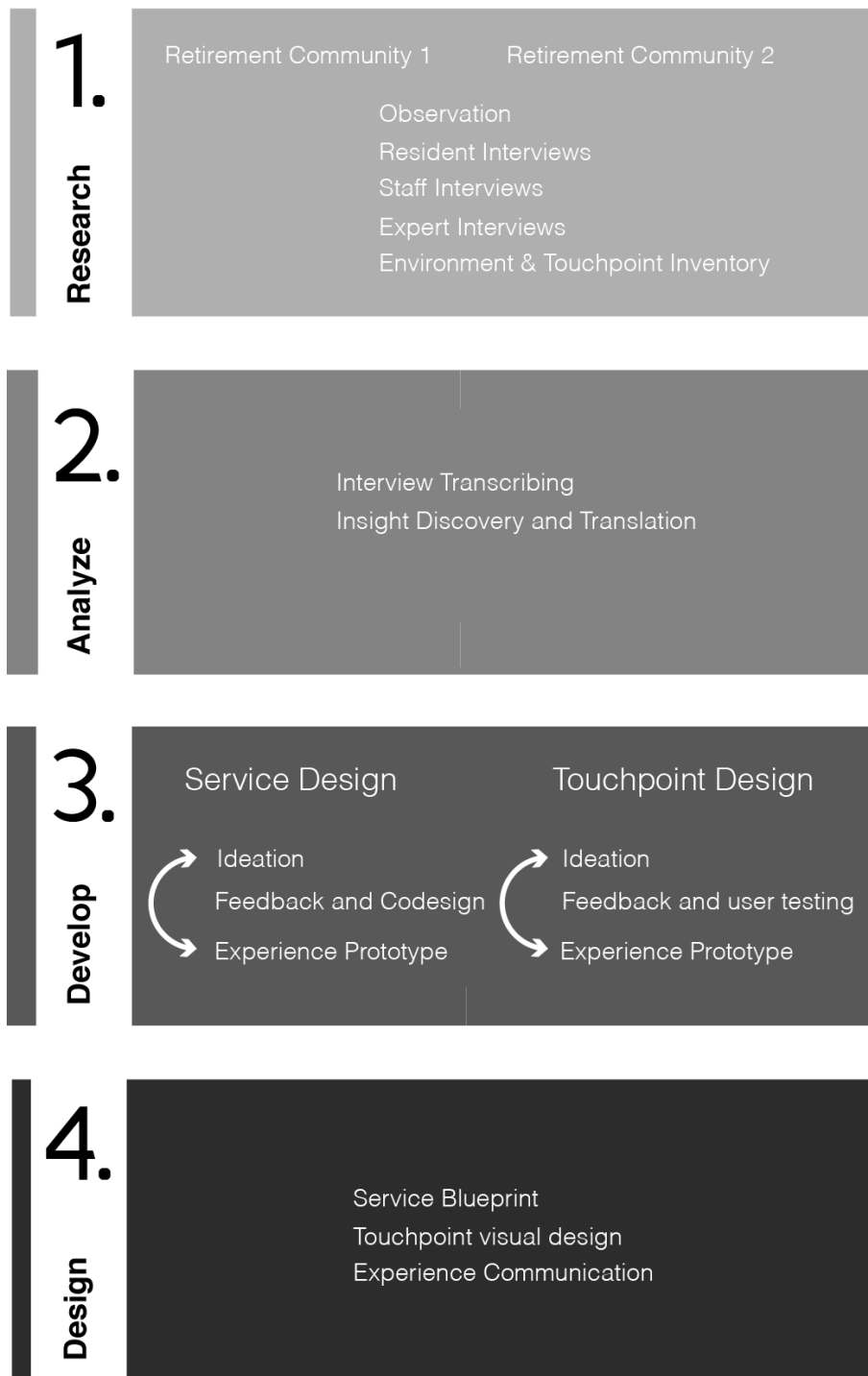


Fig 1.1 Thesis Process



02 Research

Research Plan

In order to better understand the environmental and social factors within the community, as well as unique feelings and circumstances surrounding individual residents, a combination of ethnography, observation and stakeholder interviews were utilized. Ethnography gives older adults the opportunity to express thoughts on their own terms, without the threat of judgement, or a strict timeline that must be met. Interviews lasting between one and two hours were held within the residents apartment, creating a safe place for conversation, and context for the researcher to observe and use as a catalyst of conversation. Environmental observation was then used within the larger community to understand the context these individual experiences take place and allow the researcher to connect resident's personalized accounts to a larger social fabric (G.Hubbard, 352).

Interviews were held at two retirement communities in Atlanta, Ga. Both communities are classified as Independent Living Communities, though differ in average age with one at seventy five and one at eighty five. Due to this, level of services available and activity level of also differ between communities.

Interviews of residents were structured around the four phases of the transition process (Fig. 1.2), beginning with an introduction and concluding with an environment walk through. The introduction began with an explanation of the goals for the thesis project and then sought to gain a better

understanding of the participant's background.

Questions of background created an easy gateway to begin questions about how the decision was made to move to the retirement community. Initial feelings about the moving process and the environmental and social circumstances that made this easy or difficult were then uncovered. Questions about family relationships and control of the transition process effecting ease of transition were also covered at this time. Once an understanding of the initial transition process was attained, information about what has helped and hindered the resident in feeling at home in their new community was collected. In addition, questions focused on what the resident perceives to be important in order to be a meaningful part of their new community. Once initial questioning was finished, the resident guided the researcher on a tour of their apartment, explaining routines and meaningful items within the apartment.

Interviews with stakeholders and experts followed a similar structure though were altered to fit the role and expertise of the interviewee. Stakeholder interviews also were used to gain an understanding of the backstage operations that take place during the initial transition process.

Intro	Introduction, project explanation and background information discovery
Initial Reaction	Understanding initial feelings around moving, what changes were difficult and what facilitated the transition
Transitional Influence	Gleaning how family control of moving process and environmental mesh effected transition
Adjustment & Acceptance	Discovery of current feelings towards community and what if anything has helped ease the transition
Environment Walk through	Walk through of living environment and meaningful item explanation

Fig 1.2 Interview Structure



Environment observation

Upon first entering the retirement communities a profound sense of quite and sense of detachment from society was observed. With very few young people having reason to visit the community, and limits placed on animals the community lacks the energy of youth found in a more age diverse setting. Though common spaces exist both on the first floors of both communities, as well as individual resident floors, very few residents were found out of their apartments throughout the day. On nice days, seating areas near the community entrance and where hallways intersect became points of congregation. One such bench at the base of the community elevators attracted those who might not have the physical capacity to socialize but use the bench as a way to bring social activity to them. These seating areas were also used as meeting places before daily occurring events such as lunch and dinner. Friends know they can find each other thirty to forty minutes before such event and leave their apartment early to socialize.

Events created by the Activities Coordinator and residents brought out other residents throughout the day. The Activities Coordinator created group activities around health, music, art, entertainment and religion, while some residents created activity groups around their more specific interests.

A men's group formed to talk about politics and society while another resident plays his favorite rock and roll classics for other residents every Friday afternoon. To advertise these groups, the Activity Coordinator created a monthly activities

calendar and posts it on a main activities board as well as floor bulletin boards. Residents advertised to other residents by posting a flyer in the community elevator, word of mouth or by recruiting individuals they would like to join their group.

The external community environment contributed to the feeling of isolation. Both communities are tucked away within neighborhoods with little walking space and little integration with the larger community around them. Some walkways required going up steps to enter or have a cobblestone texture making it difficult to use a walker. Residents who were determined to get daily exercise were found walking back and forth to the parking lot or around the perimeter of the building.

Summary

- Few residents utilize common spaces for socializing without a planned event
- Seating in high traffic areas allow residents to be out of their apartment and say hello to passers by
- Groups are created by residents and advertised to other residents through word of mouth and flyers placed in the elevator.

(Top Left) Residents gather to w

(Top Right) Residents sleeps on a common area bench.

(Bottom Left) Puzzles are used to bring residents to common spaces

(Top Right) Resident sits on common area bench.

(Bottom Right) Resident uses the sidewalk along the parking lot for exercise.

Resident Interviews

Seven residents were interviewed ranging in age from sixty seven to ninety five and were a mix of both male and female. All but one lived alone and had a divorced or deceased spouse. The period of time since moving to the community also ranged to attain a better understanding of residents in different stages of transition.

Stage of transition varied greatly between residents. Residents who had chosen to move to the retirement community while married or otherwise able to connect to their existing social network, found moving to the community easy. These residents had no problems making friends and felt that their social calendar was easily full with activities. These residents often took on leadership roles such as floor representative and community council member. They were not immune though, to the hardship of losing a friend in the community, but accepted this as part of life and did not let it effect their happiness. One married resident stated, "Very many friends have passed away since we moved here. You have to make new friends, and forget the old ones."

Other residents who chose to move to the retirement community, but due to adverse circumstances such as changes in marital status or family turmoil, tended to have a more challenging transition process. Without the support of an existing social network, residents felt isolated and often fell into depression. These residents expressed frustration in making friends and often felt like outsiders. They desired deeper connections

in the community, but did not know how to find others of similar interest. One resident was warned by her floor representative to "find a friend, but don't get too close" and she felt this atmosphere led to many residents being unwilling to become friends on a deeper level. Socializing outside of ones apartment without a planned activity was limited, so residents without an existing social network relied heavily on planned activities.

Finally, residents who were not given a choice in when, where or how they would move to the retirement community had the most difficult transition. These residents isolated themselves both physically and emotionally from the other residents and were uninterested in making friends or joining activities. They felt like they no longer had control of their lives and happiness and felt helpless to change their situation. One resident had moved many times throughout her life and gained respect in each new community. "I'm too old to try to start over again. I've started over many times and I don't want to do it again" she said. She longed to be appreciated and respected, but the task of introducing herself to the other residents seemed daunting.

In Figure 1.3 A matrix of residents in relationship to ease of transition and control are plotted. As you can see, no residents are found in the Easy Transition/No Control quadrant, demonstrating the importance of helping residents maintain a feeling of control and independence.

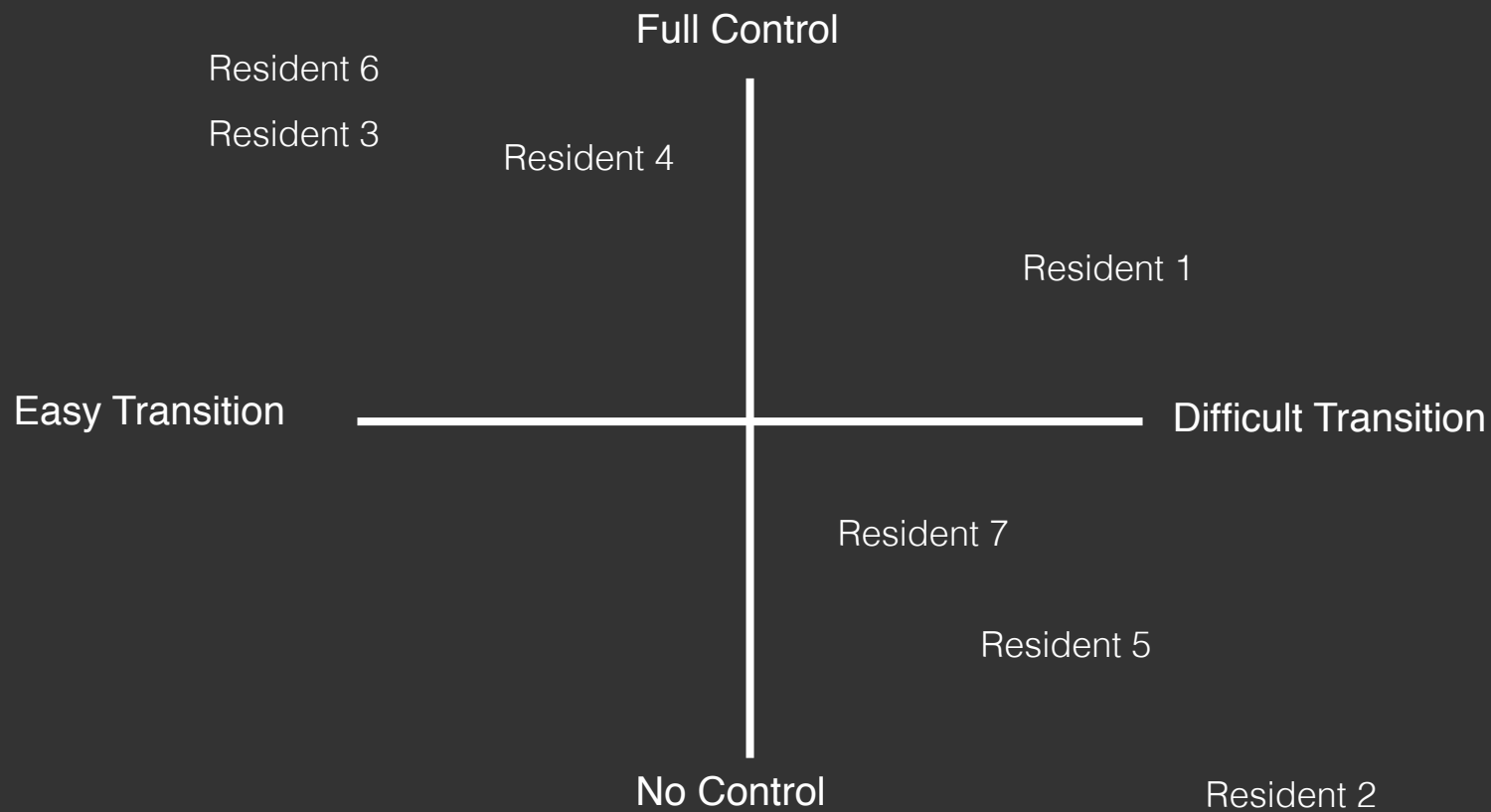
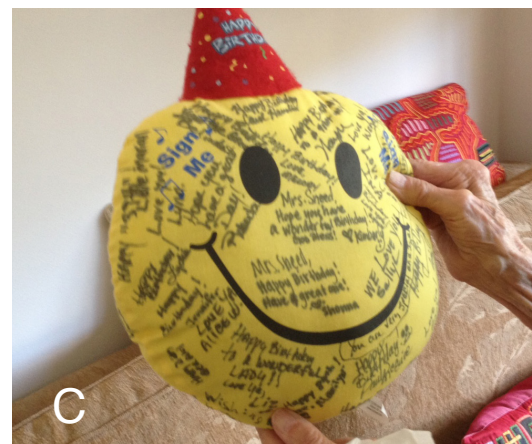


Fig 1.3 Control vs. Ease of Transition



Items of Meaning

Residents shared items from their home that they found meaningful. These items ranged from gifts given by family members to representation of work done in the past.

A. A chest given to one resident by his daughter in Indonesia. This chest represents not only the love of his daughter, but of his travels throughout the world.

B. Family picture taken with a car hand built by one resident. This picture reminded the resident of his time as a father and his love of vintage cars.

C. Happy Birthday pillow signed by staff members at one resident's former place of work. This item reminded the resident that she is loved and valued.

D. Images of built items filled one residents table. Cars, buildings, tables and cabinets reminded the resident of his past achievements.

E. Family pictures covered the cabinet of one resident's kitchen. Happy memories and recent pictures sent to him, help the resident feel in touch.

F. A photo of coworkers reminded one resident of her "friends" back at home.

G. A gift from coworkers in Peru commemorating one residents work and relationship with her husband.

H. A family photo filled with sisters and brothers reminds one resident of loved ones here and gone as well as tragedy that she has risen above.

I. A festive Peruvian pillow given as a gift while working in Peru represents an adventurous part of one resident's life as well as a time where she was honored with a building named after her.



October 2012



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Menu Week 2	1 9:30 Exercise (DR) 1:30 Current Events (OL) 3:00 Blanche Poore's 115 th Birthday Celebration (DR)	2 2:00 Joy Ride 2:00 Wii Bowling (OL) 3:00 Bend 'N' Breathe (DR) 3:30 Manicures (OL) 7:00 Bingo (DR)	3 9:30 Exercise (DR) 9:30 Tai Chi (DR) 4:00 Devotional (RJ)	4 9:00 Prayers for Peace (RJ) 9:30 Senior U (DR) 2:00 Episcopal Service (RJ) 3:00 Catholic Mass (RJ) 3:30 Bend 'N' Breathe (DR)	5 9:30 Exercise (DR) 10:30 Greek Festival Trip 2:00 Bible Study (RJ) 2:30 Music Time 4:00 Rummikub (LL)	6 8:00 Pet Visit with Zoe and Bummer (LL) 4:00 Movie (DR)
7 Menu Week 3 8:45 Sunday School (RJ) 3:00-4:00 Computer Help 3:30 Musical Performance (DR) 6:00 Choir Practice (RJ) 6:45 Holy Communion: Rev. Joyce Myers-Brown (DR)	8 9:30 Exercise (DR) 12:00 Oktoberfest Lunch (DR) 3:00 Executive Committee Meeting (RJ)	9 2:00 Joy Ride 2:00 Wii Bowling (OL) 3:00 Bend 'N' Breathe (DR) 3:30 Manicures (OL)	10 9:30 Exercise (DR) 3:30 Tai Chi (DR) 4:00 Devotional (RJ)	11 9:00 Prayers for Peace (RJ) 9:30 Senior U (DR) 2:00 Episcopal Service (RJ) 3:00 Catholic Mass (RJ) 3:30 Bend 'N' Breathe (DR)	12 9:30 Exercise (DR) 11:15 Carlos Concert 2:00 Bible Study (RJ) 3:00 Social Hour (DR) 4:00 Rummikub (LL)	13 3:00 Bingo (DR) 6:00 Movie Night (DR)
14 Menu Week 4 8:45 Sunday School (RJ) 6:00 Choir Practice (RJ) 6:45 Vespers (RJ)	15 9:30 Exercise (DR) 11:00 Red Flatters Lunch Trip 1:30 Current Events (OL) 3:00 GA Advance Directives for Healthcare (DR)	16 10:00 UMW Circle Meeting (RJ) 2:00 Joy Ride 3:00 Bend 'N' Breathe (DR) 3:30 Manicures (OL) 7:00 Bingo (DR)	17 9:30 Exercise (DR) 4:00 Devotional (RJ)	18 9:00 Prayers for Peace (RJ) 9:30 Senior U (DR) 1:30 Religious Act. Comm. (CR) 2:00 Episcopal Service (RJ) 2:30 Entertainment Comm. Mtg. (OL) 3:00 Catholic Mass (RJ) 3:30 Bend 'N' Breathe (DR)	19 9:30 Exercise (DR) 2:00 Bible Study (RJ) 2:30 Music Time 4:00 Rummikub (LL)	20 3:00 Bingo (DR) 6:00 Movie Night (DR)
21 Menu Week 5 8:45 Sunday School (RJ) 3:00-4:00 Computer Help 6:00 Choir Practice (RJ) 6:45 Vespers: Dr. Wallace Woodley (RJ)	22 9:30 Exercise (DR) 2:00 Crosswords (OL)	23 2:00 Joy Ride 2:00 Wii Bowling (OL) 3:00 Bend 'N' Breathe (DR)	24 9:30 Exercise (DR) 3:30 Tai Chi (DR) 4:00 Devotional (RJ)	25 9:00 Prayers for Peace (RJ) 9:30 Senior U (DR) 2:00 Episcopal Service (RJ) 2:00 Food Committee Mtg. (CR) 3:00 Catholic Mass (RJ) 3:30 Bend 'N' Breathe (DR)	26 9:30 Exercise (DR) 2:00 Bible Study (RJ) 2:30 Music Time (DR) 4:00 Rummikub (LL)	27 3:00 Piano Recital (DR) 6:00 Movie Night (DR)
28 Menu Week 1 8:45 Sunday School (RJ) 6:00 Choir Practice (RJ) 6:45 Vespers: Dr. Ellen Shepard (RJ)	29 9:30 Exercise (DR) 2:00 Crosswords (OL)	30 2:00 Joy Ride 2:00 Wii Bowling (OL) 3:00 Bend 'N' Breathe (DR) 3:30 Manicures (OL)	31 9:30 Exercise (DR) 3:00 Halloween Social (DR) 4:00 Devotional (RJ)	<u>First Floor</u> (DR): Dining Room (CR): Conference Room (LL): Mary Laney Library	<u>Lower Level</u> (OL): Old Library (RJ): Riley Room (CO): Copher Room	

Stakeholder Interviews

Interviews were held with Service Coordinators at both retirement communities. These interviews were used to understand the Service Coordinator's perspective on the transition process, the backstage processes that are in place to support it, as well as uncover gaps in service.

In the first community, with an average age of 87, residents have an increased loss of mobility and feel a greater isolation from the larger community. The Service Coordinator at this facility found that many of her residents experienced differing levels of depression and grieved the loss of the lifestyle they once knew. She suggested, "the residents want to feel like life hasn't changed. It is important to keep them living in the now and future oriented." In this community, staff members meet with new residents throughout the process from first interest, to touring the facility and finally orienting residents during the first week of residence. During this week, representatives from their floor, as well as Maintenance and House Keeping departments all stop by to introduce themselves and orient the new resident. When this is done, the Service Coordinator also meets with the resident to collect needed information and assess the level of care needed. Residents are also assigned a table for meal times. In this community meal times can often be the only time a resident leaves their apartment, so the Service Coordinator uses this opportunity to assign seating next to other residents who might have similar interests. Once acclimated, new residents are introduced monthly to the community during the residents council meeting.

In the second community, with an average age of 75, residents are much more mobile and able to leave at will to attend city wide events or visit friends. The Service Coordinator at this community observed residents struggling less with isolation but with loss of value and boredom as they transition out of the working world. This community follows a similar move in process to the first but does not require residents to meet with each department during their first week.

The Service Coordinator meets with the resident to collect important information and explain optional services such as meal delivery and an "ok" tag that can be placed on the residents door. Residents place the "ok" tag on their door each morning before 9am to let staff know that they are alright. This service provides peace of mind to residents in the event of a fall or other health issue. In this community, seating is not assigned in the dining hall. Because of this, meal time can be an intimidating situation for new residents who do not have friends to sit with or know where others are accustomed to sitting. The Service Coordinator explained, "clicks are formed, and knowing where to sit at dinner is a problem." New residents are invited to attend a "New Resident Orientation" quarterly to better understand rules, resources and community operations. Interestingly, neither community offered services in the initial phases of transition to ease integration and help residence find their place within the community. (Left) The October monthly activity calendar lists activities residents can join.

Expert Interviews

Expert interviews were held with Jason Zamer, an entrepreneur in senior technologies as well as Ruth Ann Bohon, a Geriatric Nurse. These interviews were held to attain tertiary understanding of the social and environmental factors influencing older adults in retirement communities and gain expert feedback of the transition process.

Jason Zamer, a board member of SimpleC, “creates highly personalized multi-media therapies that can be used to reduce anxiety, compassionately redirect behavior, increase socialization, and provide a catalyst for communication.” When speaking with Jason, he emphasized the importance of regular schedules when dealing with older adults as well as helping them learn about each others life and family. Regular schedules are important because they are used to timestamp the day as well as reduce anxiety caused by unfamiliar situations. In addition, Jason has found that helping older adults communicate their interests as well as learn about fellow residents helps facilitate community and friendship between residents.

Mrs. Bohon, a Geriatric Nurse, spoke to the extreme trauma associated with the transition process. This period of time is often associated with the loss of a loved one or mobility leading to the need to move to an environment of increased care. In addition, the lack of mobility and possible cognitive impairment associated with the move makes the process of making a home in a new place and making friends more difficult. She emphasized the need to teach residents new activities they can do with the new limitations on their body as well as motivate them to get out and move.

To better understand how retirement communities currently interact with new residents during the transition process, a touchpoint analysis (fig. 1.4) was created. From this analysis, a gap in service was found after residents first move in where little is done to facilitate socialization and deep connections with new residents.

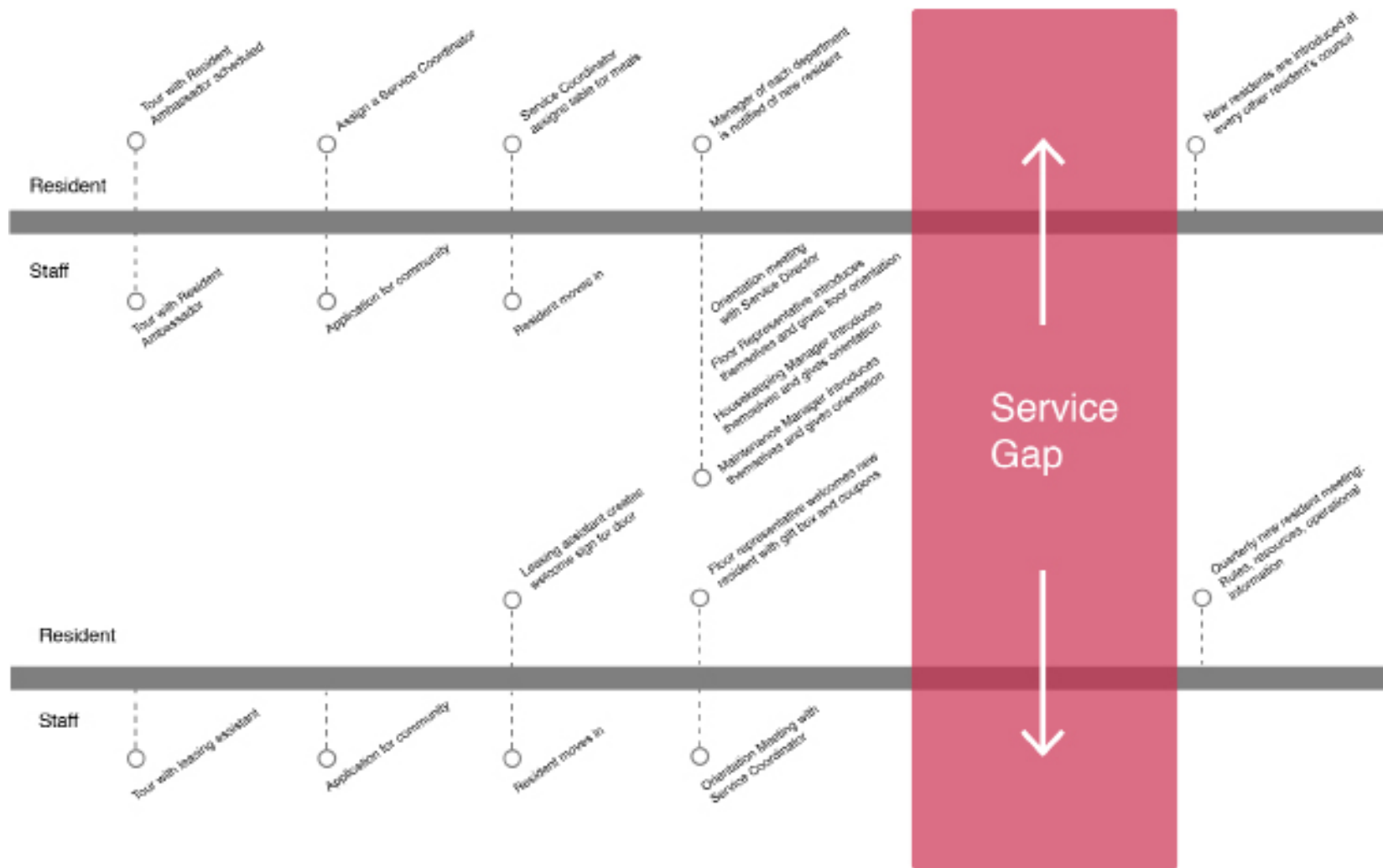


Fig. 1.4 Touchpoint Analysis



03 Analysis

Analysis Process

The analysis process began with transcribing each interview recording into succinct statements by the residents. Each resident was assigned a color and the statements were placed on statement cards for easy sorting. Colors were used so that statements could be easily traced back to their owner and to easily identified categories that did not apply to all participants. Once statement cards were created, they were evaluated for emerging themes and sorted and resorted until distributed into piles of similar statements. These themes ranged from “making friends”, to “boredom” and “loss of freedom.” Many of these themes had similar, though slightly different sentiments and created natural clusters of thought. Five clusters emerged and were organized based on the effect they had on the resident. They were “Effect

of Activity Level”, “Effect of Friendship”, “Effect of Values”, “External Effect on Happiness” and “Effects on Life as Normal.” These clusters were used to draw out problems and opportunities as well as to define meaning for the residents.

(Top) Statement cards identify interviewees through color and are used to quickly sort through and draw out patterns among the interview statements.

(Bottom Left) Card sorting is used to group similar statement cards and create themes around them.

(Bottom Right) Statement themes were then grouped to form clusters of similar themes and draw out main insights.

Defining Meaning

Three main themes were drawn from analysis to reflect how residents interviewed define a meaningful life within the retirement community. The themes were then used to guide the ideation process.

Feeling of Value

The first theme that was uncovered points to residents need to feel of value in their new community. One resident who loves to build and fix cars stated that “Everyone her is old, they don’t need my help.” Other residents have found ways to be of service in the community by driving other residents to the doctor, taking on roles as floor representatives or working as a front desk secretary. This feeling of value though does not only pertain to acts of service, it also is effected by how well they feel others understand them. A resident who was new to the community explained, “I lived in Panama and when I left the school I worked at, they named a building after me. They appreciated me...i’ve lost confidence in my ability. I don’t think anyone hear would appreciate me.” It was important for new residents to find a way to communicate who they are and show that they have a rich history and diverse skills and interests.

Deep Connections

The second theme that emerged addresses the prevelance of acquaintances and lack of “good friends” in the community. Not one of the residents could identify someone as a “good friend” and

some struggled with feeling they had noone to rely on when times were tough or to check on them when they weren’t feeling well. Many factors were shown to contribute to this phenomenon. Resident’s desire to protect themselves from hurt when a friend dies, the amount of activities in small group settings and the diverse backgrounds and lifestyles of residents all contribute to a lack of deep connections. Residents enjoyed learning about others interests and background, but found it difficult to find and connect to others of similar interest.

Feeling at Home

The third theme addressed what made the residents feel at home. Residents expressed that having items that reminded them of home made them feel comfortable, but knowing smiling faces in the halls and knowing other residents names also was important. Some expressed frustration with lifestyle changes that had to be made to live in the community. One resident said “It’s just being in my own things. Not worrying about the TV being too loud. Or wearing slippers to take the garbage out.” Getting acquainted with new routines and other residents helped make the new community feel more like home.

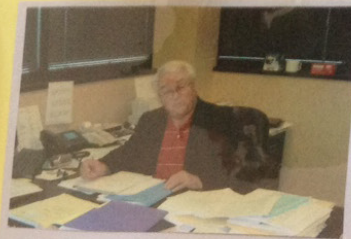
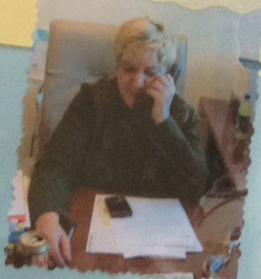
(Right) A photo album created to celebrate one resident’s time as a secretary reminds her that she is valued for her spirit and work ethic.

I have known you for 15 years now and you are just as spry as you were 15 years ago. I can't say the same about myself! You never seem to get older! If we had an employee of the year you would be on the top of the list every year. Your dedication and hard work will never be matched by anyone at SSFH, not even Sharly (Hee Hee)!
 You are an inspiration to all of us, but it does not say much for the retirement program around here. I love you and hope that you have a Glorious 90th Birthday!



Happy 90th Birthday!
 Jennifer Slade

It has been my honor to share my A.M. Best Book with you all these years. I miss our visits now that we got you your own! Love you!
 Happy Birthday, Mary Pat Rogers



**IF AT FIRST
 YOU DON'T SUCCEED,
 DO IT LIKE YOUR
 MOTHER TOLD YOU.**
 AUTHOR UNKNOWN

John
 Thought you might need this -
jm



"... and I owe a lot to my dear mother who scrubbed floors to help me get where I am today. Right Mom?"

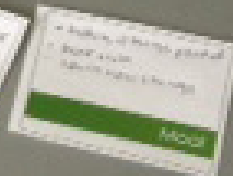
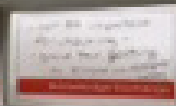
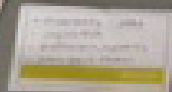
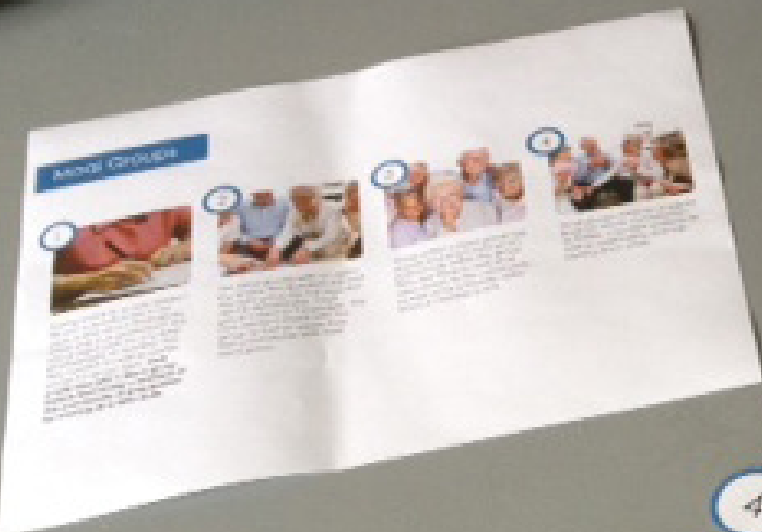
Problem Statement

Once the interview data was analyzed and insights drawn out, a problem statement for the project was defined.

"A disconnect is created when transitioning to a retirement community that remove residents from those things in life that bring them meaning, defined as deep connections, feeling valued and feeling at home. Without these things, residents can feel a loss of control, and struggle to find their place within the retirement community. This stress placed on the resident's value system, in turn effects activity level, socialization and overall ease of transition."

This statement was a guide for the ideation and development process by defining what key insights were most important to delivering an easier transition process to new residents in a retirement community. These key insights are 'deep connections', 'feeling valued' and 'feeling at home.' For a design to be successfull, all of these insights must be addressed.

During ideation, these key insights were used to vett ideas and choose the most successful. For an idea to be chosen, it had to address at least two out of the three key insights. After the initial ideas were developed and feedback recieved, additional rounds of ideation used the same vetting process where ideas that did not address two out of three key insights were not chosen. During the development stage, key insights were used to drive functionality and determine which functions were needed to ease transition for the residents.



04 Ideation

Feedback and Codesign

Ideation began with brainstorming around the three themes that emerged during analysis. Ideas were not critiqued at this point for plausibility but were generated in mass to produce more creative ideas. Ideas were then evaluated based on how well they addressed the three themes. From these, two ideas were selected and translated into storyboards. These storyboards were then used as tools for user feedback and codesign. Each storyboard was divided into individual steps to allow residents to give positive or negative feedback for each. In addition, residents were asked how they would prefer each step to look. Once both storyboards had been reviewed and feedback received, the resident was asked to give their preference on the two ideas. This exercise was held one on one in the residents apartment. Working one on one is important to create trust and eliminate insecurities created in group settings.

Moai Group

The first concept refers to an ancient tradition found in Okinawa, Japan. This region is known as a “Bluezone” for its long life expectancy. In this region, groups of lifelong friends meet daily and act as social, emotional and financial support

throughout life. These Moai groups are formed during childhood and are maintained until death. In order to simulate such support networks, this concept created small groups of residents with similar interests that new residents could join (or be chosen) upon arrival to the community. These groups would meet for conversation, activities and to support one another on happy and sad occasions. This idea was well liked by residents and stakeholders though the risk of a resident feeling left out and the difficulty in getting this service started were seen as negatives.

Knowledge Exchange

The second concept builds on the desire of residents to feel valued as well as learn new skills and hobbies. This service connects residents to people in the larger community that can be helped by their vast knowledge. In return, members of the community can offer their own knowledge and services, allowing residents to not only develop new interests but increase socialization in the process. This concept also was well received by all but some worried those residents who are not as able bodied might be excluded.



Mapping the Experience

Positive and negative feedback from each experience was then combined to develop a concept that embodied the best of both the Moai Group and Knowledge Exchange. To better explore how these two concepts could be combined, quick experience maps were created to see how each concept would fit into the transition experience. (Fig. 1.8) The transition experience was broken down into four phases: Pre-Entrance, Leasing, Move-in and Adoption. In each phase, what the resident is thinking, doing and feeling was considered. Purple post it's were then placed to represent steps specific to each design. This quick exercise helped take a holistic look at each design within the transition process, and vet which would best address the needs of the residents.

From this, an experience (Fig 1.9) was chosen that extends the transition process to the pre-entrance period by giving future residents access to resident and staff created activities before they sign a lease. By allowing residents to begin socializing and enjoying activities before entering, they are given the tools necessary to take control of their transition process and move on their own terms. Once in the community, residents benefit from contacts organically made. Once they feel comfortable in the community, this service then offers the ability to share their skills and interests with other residents by creating a group of their own.



Figure 1.8 Iterative Experience Maps

Resident Experience Map:
Activity group network

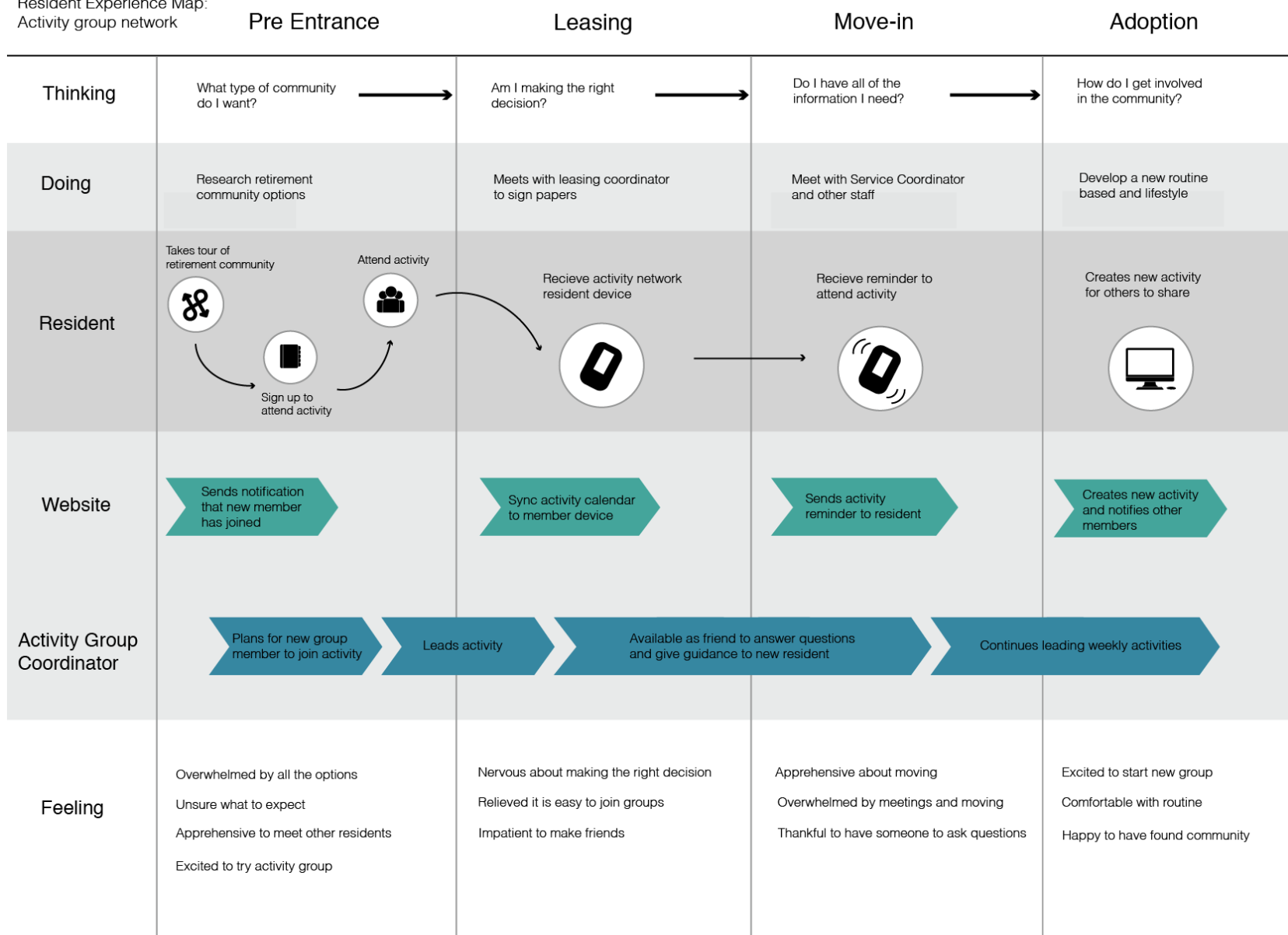


Fig. 1.9 Experience Map of chosen design

Main User Actions

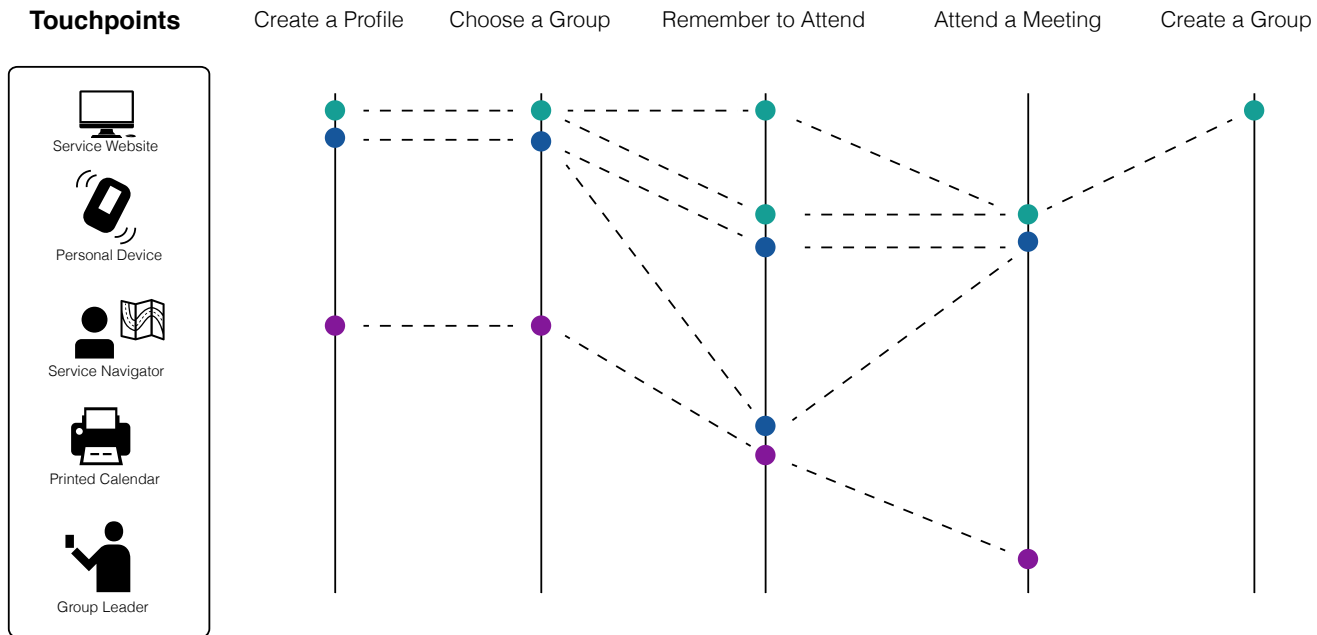


Fig. 1.10 Touchpoint Matrix

Exploring Touchpoints

The next step was to understand the needs of the different residents who would be interacting with this service. In order to truly be inclusive of all residents, touchpoints that require different levels of technological understanding are necessary. A digital touchpoint that could be accessed anywhere is necessary to allow future residents to get involved in activities while away from the community. But what about those residents already living in the community? Could these residents participate in the service with limited or no technological understanding? To tackle this problem, I first created three personas to represent the different types of residents who would use the service. The first, called the “Technology Socialite” are residents who continue to keep up with trends in technology, are comfortable accessing email and doing basic online searches. They also have

learned to text message and do other social activities digitally to form closer relationships with their grandchildren. The second, the “Technology Dabbler” still separate daily activities from activities online, but are not intimidated by new technologies. They have an email account, but rarely check it and enjoy using devices given to them if they are set up and demonstrated by someone they trust. Finally, the “Technology Recluse” has no interest in adopting new technologies and are comfortable with the “way it has always been.” They admit they would enjoy what some technologies offer, but don’t feel the need to learn how to use them. From the needs defined in these personas, I utilized a touchpoint matrix (Fig 1.10) to analyze how the different personas would interact with the service.



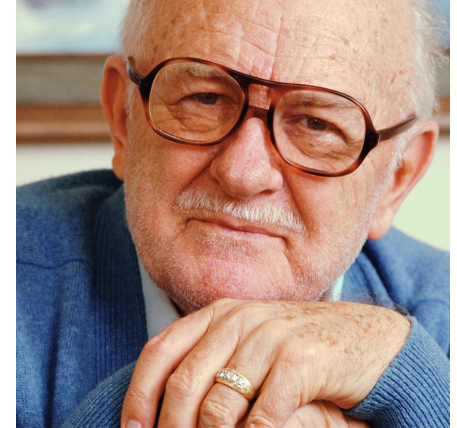
Technology Socialite

"I connect with my grandchildren and friends through email and even Facebook! I enjoy the challenge of learning new technologies and love all the new ways I can connect with my family."



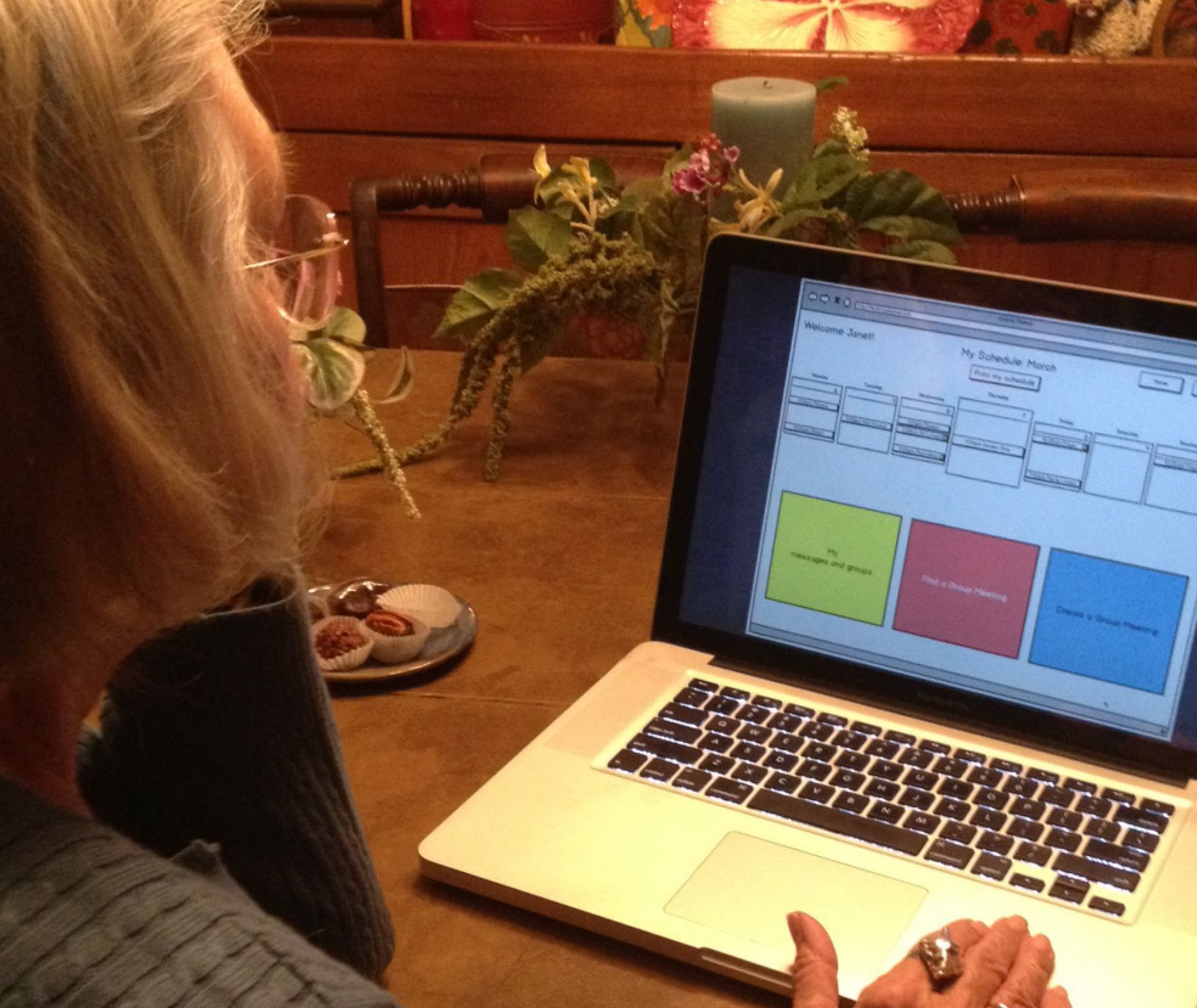
Technology Dabbler

"I have an email account, and know how to log in to other accounts my kids have set up for me. I can't say I use the computer in my daily life, but I like being able to check things online once or twice a week."



Technology Recluse

"I don't see how computers would fit in my life. If I could call or pay a friend a visit, why would I email them? Computers have never been a part of my life so far, and I don't see why they should be in the future."



05 Touchpoint Design

Designing Interaction

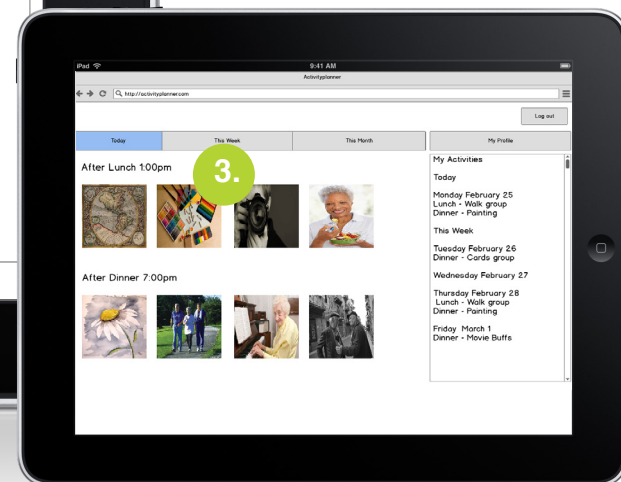
To design the digital touchpoint used to connect residents to groups in the community, an iterative method of design and feedback from current residents and Interactive Design experts was utilized. Using prototyping software called Balsamiq, multiple versions of the interface were quickly designed and put in front of residents and experts for feedback. This feedback was then used directly to tweak both functionality and user interaction. This feedback included ways to simplify user flows, button size and location, additional functionality and arrangement of the interface. Three main iterations were developed (with small iterations between) and used to collect feedback. The outcome of these iterations was then turned into an interactive prototype and tested with residents.

Iteration One

1. The first iteration of the touchpoint interface included three functions with large, easily clickable buttons. Three simple functions of finding an activity, creating an activity and inviting a friend were intended to keep the interface easy to use, and to not overwhelm the user.

2. On the far right side, a list of current and upcoming activities was displayed on all screens, for easy referral when searching for new activities.

3. Based on Dr. BJ Fogg's Behavior Model for Persuasive Change (2009), in order to trigger memory, activities are designed to take place after lunch and dinner, two daily activities that are staples in the resident's lives.





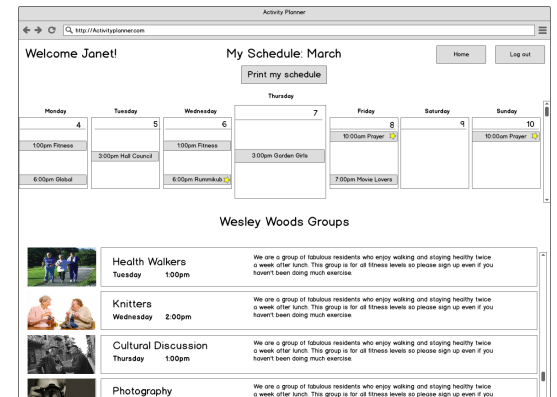
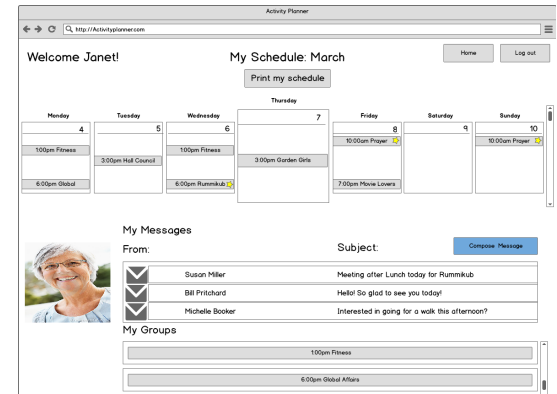
Iteration Two & Three

1. Though the schedule was well received in iteration one, it seemed hard to organize and navigate daily activities. In iteration two, activities are added to a calendar that can scroll right or left to see additional days. This can be viewed by day, week or month.

2. After resident feedback was given on initial designs, it was discovered that creating individual activities did not fit with the norms of the community. Residents prefer having

predictable weekly schedules and form groups to accommodate their different interests. Because of this, iteration two focused on allowing users to enlist in reoccurring groups of interest, as opposed to join individual activities.

3. In iteration three, the calendar feature was expanded to show an entire week at once (eliminating the need to scroll). In addition, a print button was added above the calendar for easy printing of your group activity schedule.



Usability Testing

Once the interactive prototype of iteration three was developed, it was tested with a total of two retirement community residents and two experts. Test participants were asked to complete three tasks: find a group, send a message and print your schedule.

Find a Group

All but one participant successfully completed this task without assistance. Problems arose once on an individual group page and trying to join the group. The “Join Group” button was not clear, and did not pop out to the user, making it hard to find. In the final design, this button’s color was changed to a brighter, more visible color, and moved to the top of the group description.

Send a Message

Both residents had trouble with this task. Finding the messages page was not a problem, but once again, grey buttons and too small font made the “Send email” button hard to find. Residents tried to click on previous emails listed below when they did not see the “Send email” button. For the final design, the “Send email” button was changed to a brighter, more visible color.

Print your Schedule

All participants were able to print their schedule fully without any problems. This was due to its large, centralized location on the homescreen. In the final design, the “print schedule” button was moved to the top bar to simplify the overall design based on expert feedback. This move would need to be tested again for usability purposes.

Additional Feedback

Residents suggested incorporating a directory into the design because finding and looking through a physical directory can be tedious and it made sense to not only locate groups but also individuals. This seemed like a natural progression of the designs intent and would be helpful as a tool to find other residents of similar interest.



06 Final Concept

Communicating the Design

High Fidelity Designs

Once the touchpoint and service components had been designed, high fidelity designs of the website interface was developed. To create a visual design that would be simple and appealing to older adults, white, grey and a monochromatic turquoise color palette was chosen. Purple was also used as an accent to highlight important functions throughout the website.

Story Board

To communicate the service concept, a storyboard (Fig 1.17) was used. Vertelney (1990) states, "The storyboard is a tool derived from the cinematographic tradition; it is the representation of use cases through a series of drawings or pictures, put together in a narrative sequence." To communicate the ActiveLife Service, the reader is directed through both the pre entrance and post entrance experience. The pre entrance experience

includes researching and learning about the community, trying out a group and deciding if the community is the right fit. The post entrance experience includes creating a full account with the help of the navigator, receiving an ActiveLife device, being reminded of the group meeting and attending it.

Service Blueprint

To communicate how the service will function both in front and back stages for future implementation, a service blueprint (Fig. 1.18) was created. Bitner (2007) states, "The blueprint is an operational tool that describes the nature and the characteristics of the service interaction in enough detail to verify, implement and maintain it." The ActiveLife blueprint includes actions taken pre entrance and post entrance by new residents, management, tour guides, navigators and group leaders.

Final Touchpoint Design

Once the prototype was tested and feedback was incorporated into the design, high fidelity designs were created for each page. High contrast colors were used along with scalable, sans serif fonts to allow for easy reading by older users. In addition, unnecessary items were reduced to simplify the design.

Homescreen

The final homescreen design (Fig. 1.11) incorporates easily accessible tabs with descriptive icons and colors to make functions easily distinguishable. The “Messages and Activities”, “Find a Group” and “Create a Group” buttons remain large with corresponding descriptions for reference. The “Print Schedule” link was moved to the top bar to simplify the design and create more room for white space. In addition, a profile photo snapshot was included in the top right corner to indicate that the user is logged in.

Find a Group

The “Find a Group” page (Fig. 1.12) allows users to search available groups in their community. Listings display a picture, the group name, day and time they meet and groups availability to join. Users can list groups alphabetically, by day they occur or by availability status. They can also do a key word search for a specific activity they have in mind.

My Messages

The My Messages page (Fig.1.13) allows users to communicate with fellow residents, receive invitations to join activities, and collect group announcements in one place. This page also holds a direct link to the user's personal directory profile.

Directory

The directory (Fig. 1.14) is used to gather practical information such as apartment number and phone number, but is also used to help residents get to know each other on a deeper level. Directory entries include a brief bio of each resident as well as a list of interests. To further promote communication, “Send a message” and “Send an Invite” buttons are placed on the far right side of each directory entry.

Create a Group

The Create a Group page (Fig. 1.15) appears visually similar to the Group page, and guides the user in quickly filling out a group profile through drop down menus, text entry boxes and link buttons.

Group Page

A group page (Fig. 1.16) can be located by clicking on the group link found in the user's calendar or by searching for the group on the “Find a Group” page. This page includes when and where the group meets, a brief description of what the group is all about as well as a list of the group members and coordinator. These member's names appear as buttons, and link the user to their directory profile. If the user would like to join the group, they simply click “Join Group” and the group is added to the user's calendar. To provide feedback, the “Join Group” button becomes “Group Member.” Because some activities, such as playing cards are sensitive to group size, a group size option is given when creating a group. If a group is full, a new user can join pending a spot comes open.



Figure 1.11 Homescreen



Figure 1.13 My Messages

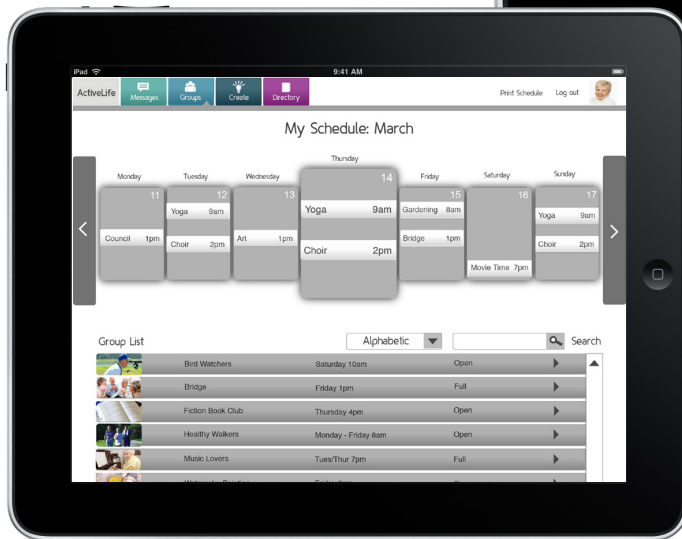


Figure 1.12 Find a Group

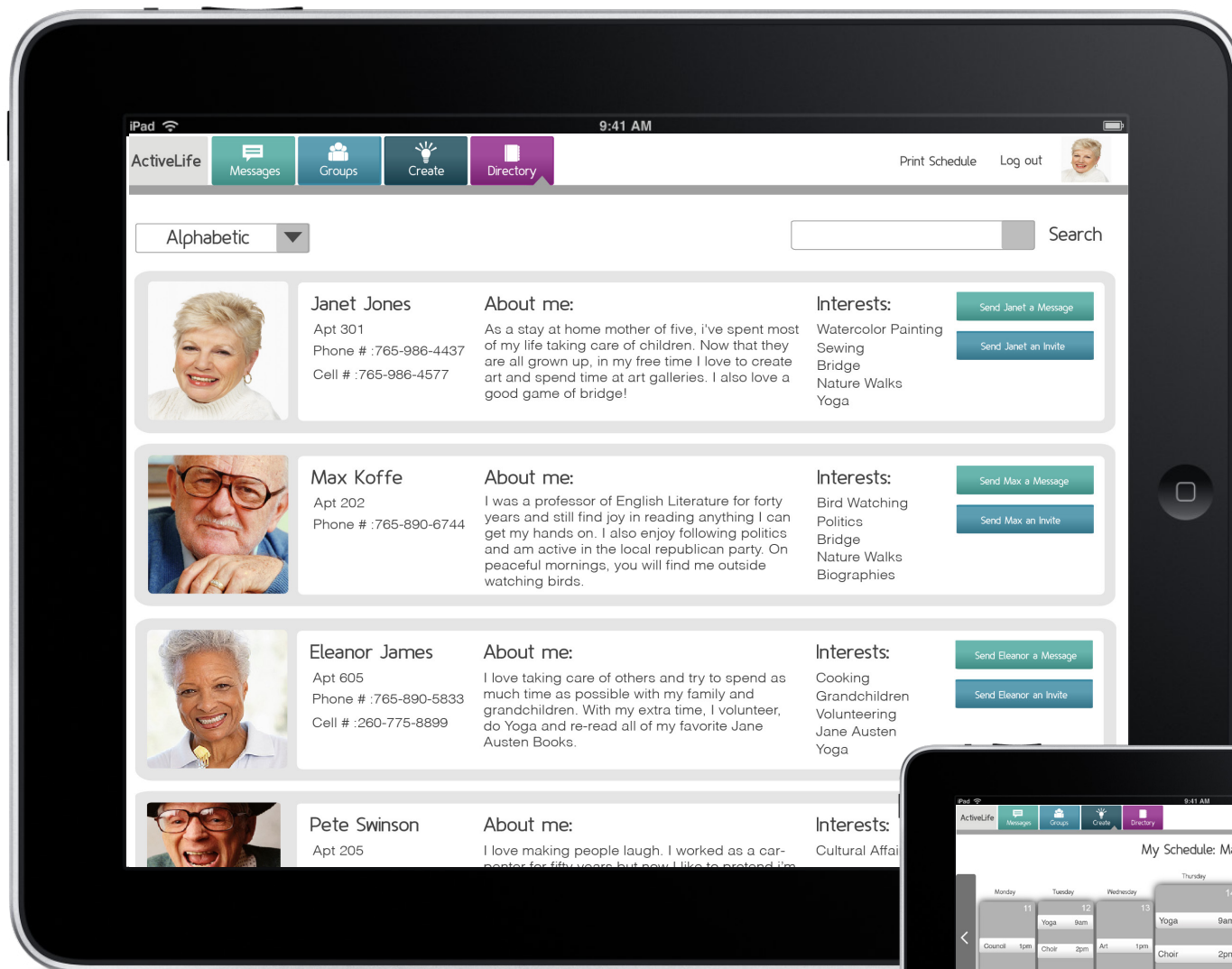


Figure 1.14 Directory

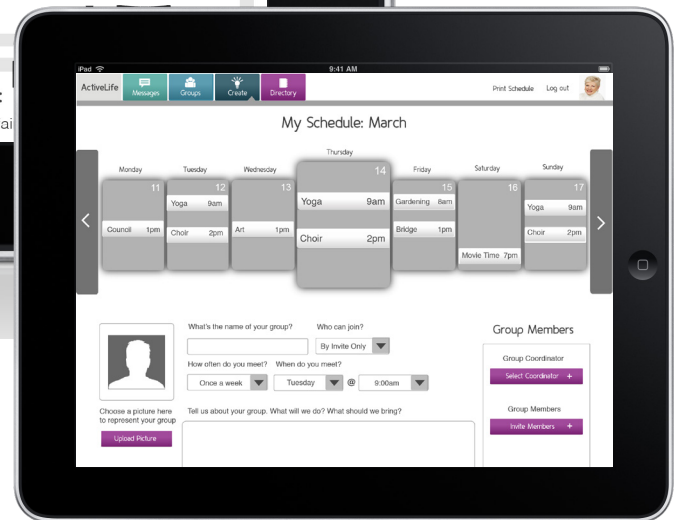
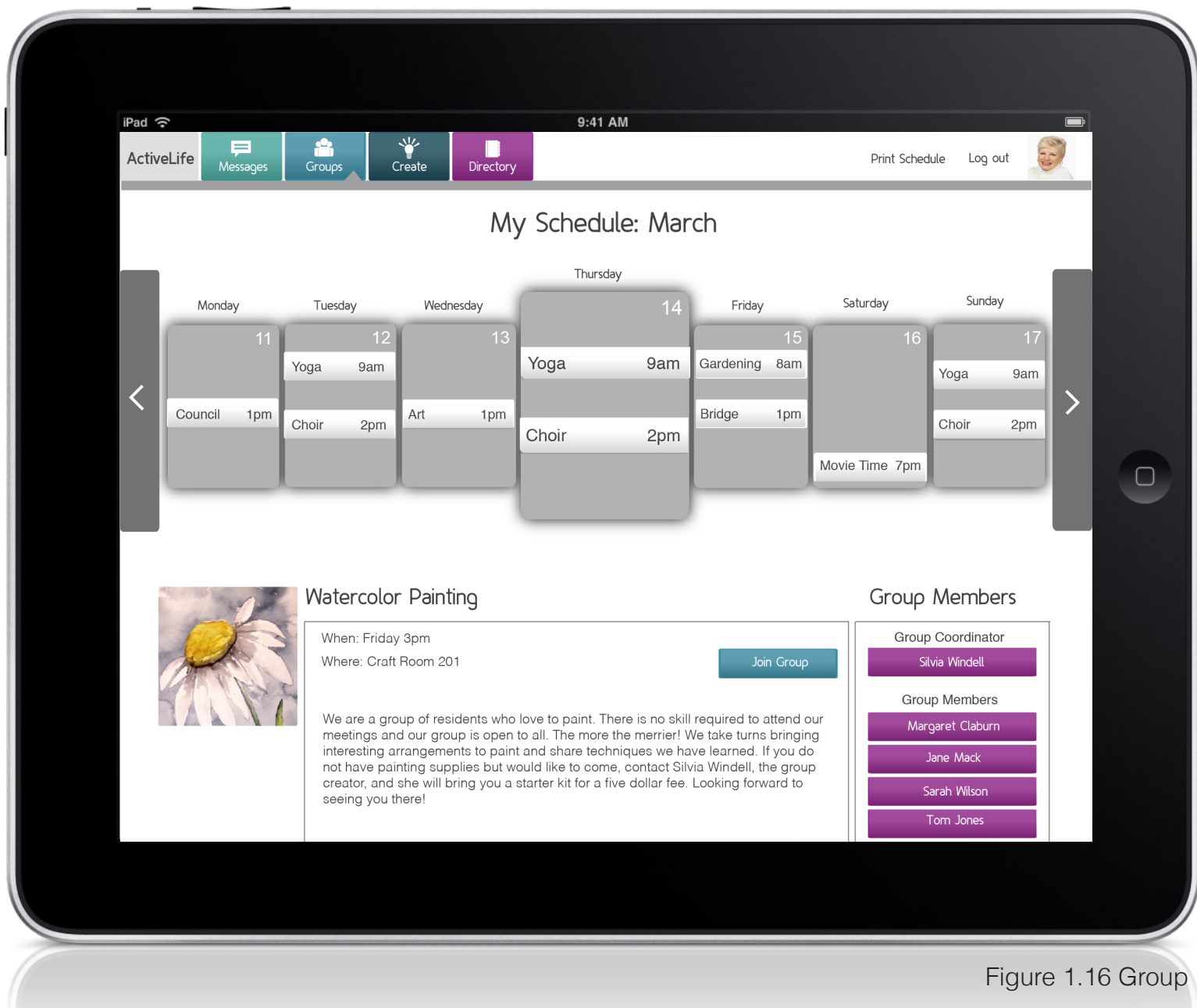


Figure 1.15 Create a Group



ActiveLife, a service designed for retirement communities, allows prospective residents to select and join groups created by residents on a trial basis, to meet new friends, better understand life in the community and make the retirement choice that is right for them.



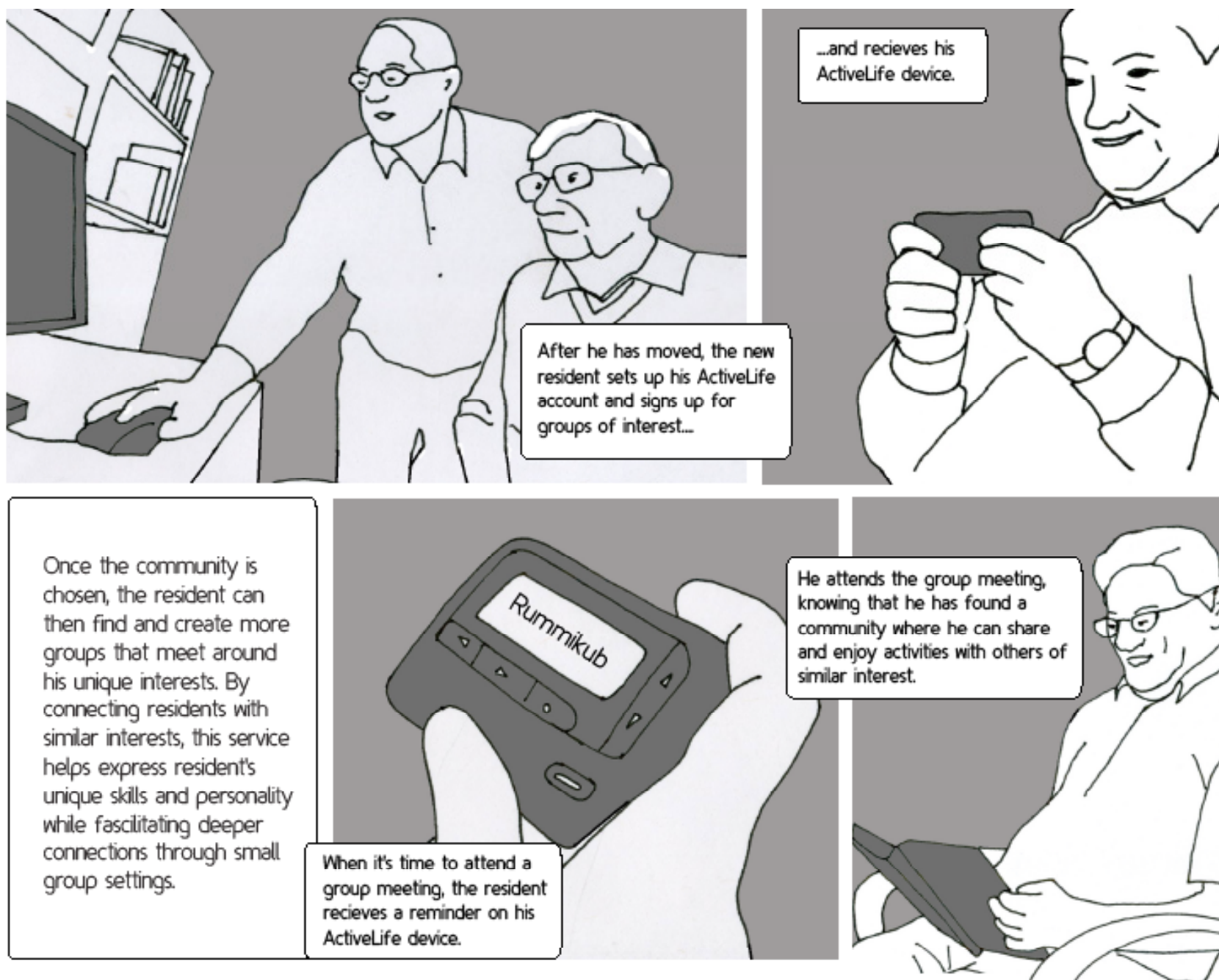
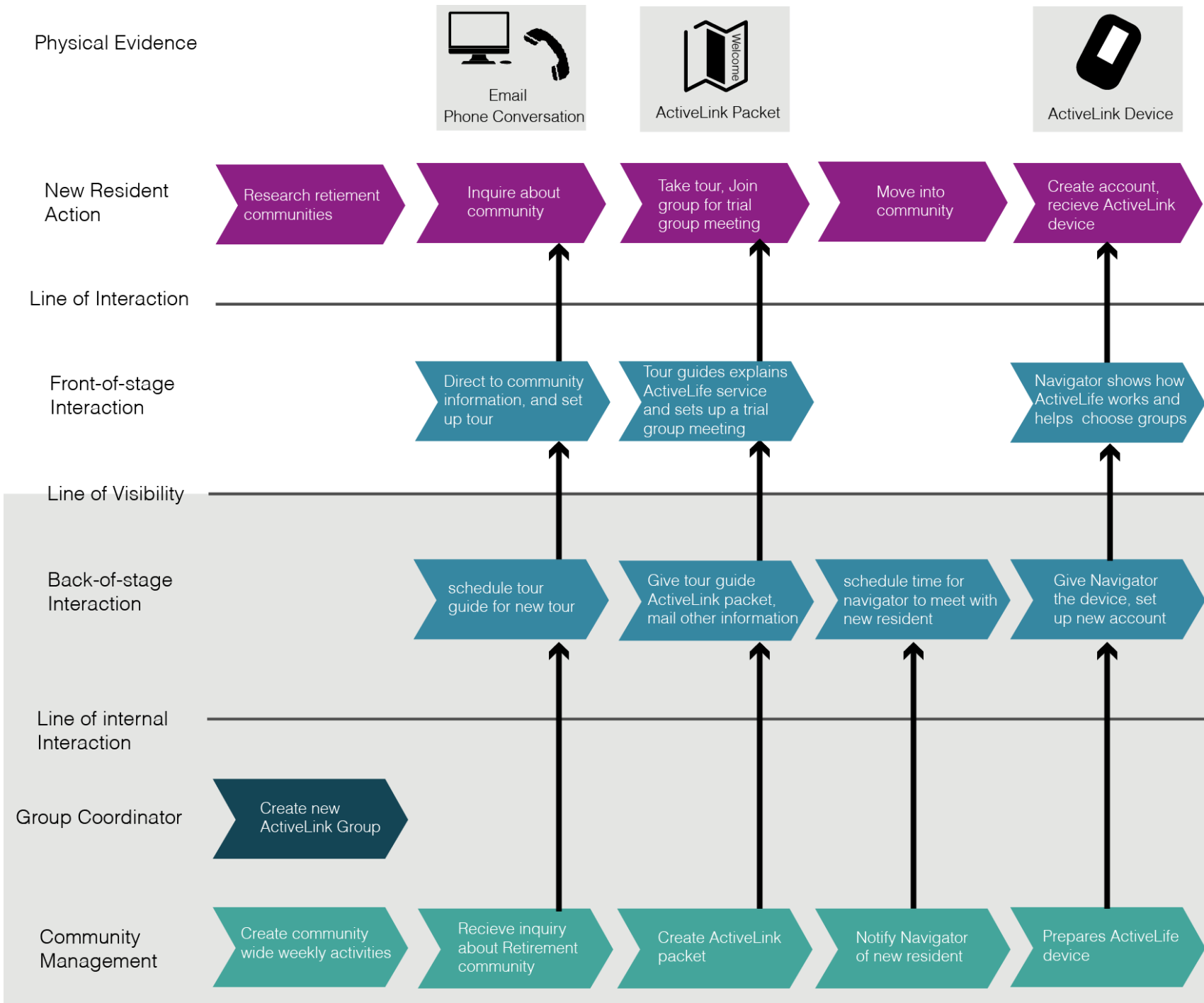
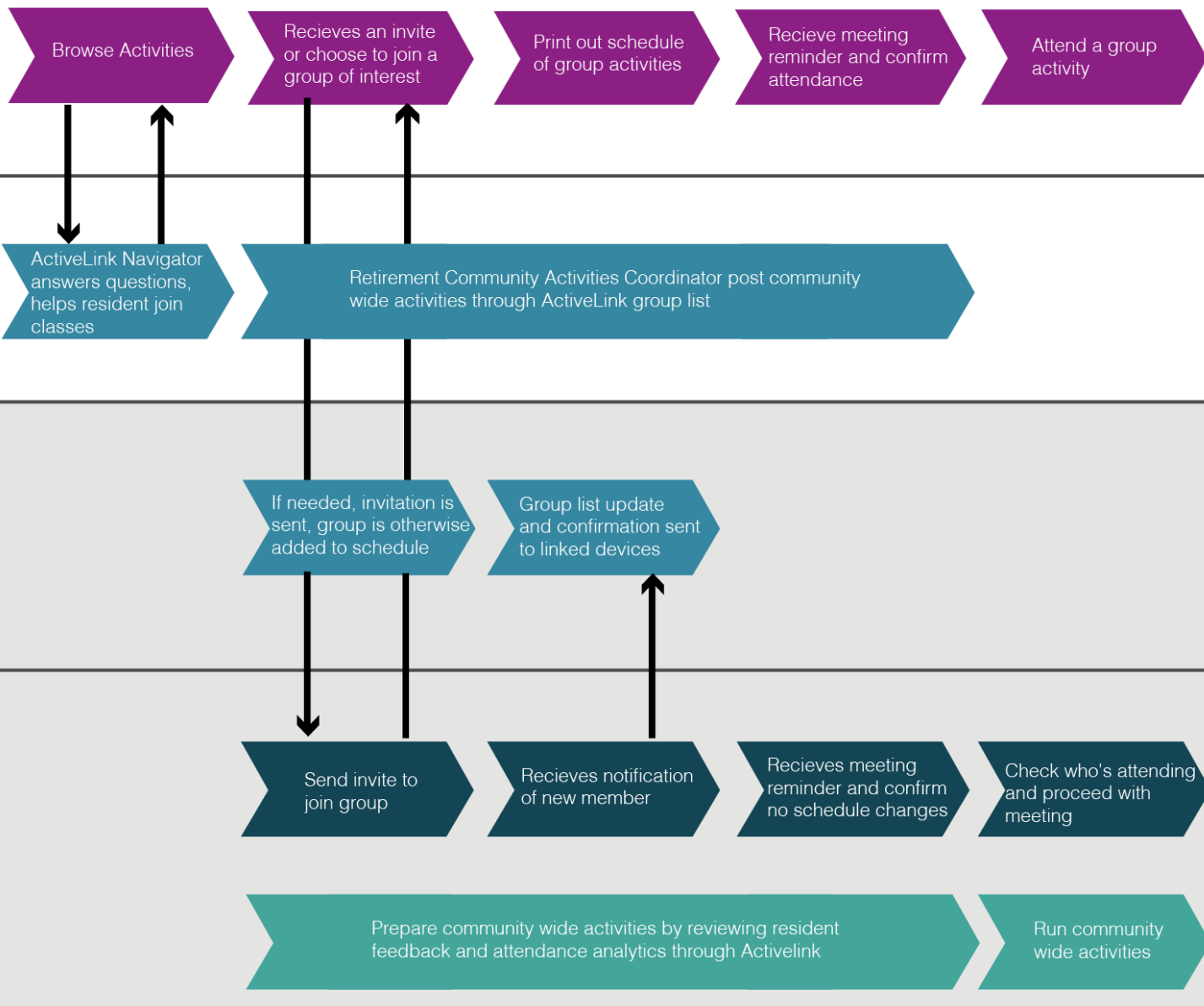
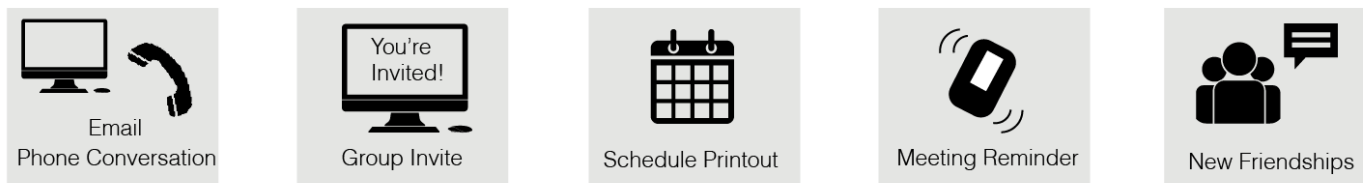


Figure 1.17 Service Storyboard 61





Future Work

Though a digital touchpoint, service blueprint and storyboard of how this concept would be implemented have been developed, more work, not within the scope of this project, should be realized to fully implement this concept. A working prototype of the website design should be developed to further test usability with a larger population of residents. In addition, a service prototype implementing all touchpoints should be developed and tested to

better understand how residents react to the service experience and make changes where needed. Finally, the form design and interaction with the ActiveLife device must be developed to ensure integration into the service system and brand consistency.

References

- Brandburg, G. L. (2007). "Making the transition to nursing home life." *Journal of Gerontological Nursing*, 50-56.
- Bitner, M., Ostrom, A., & Morgan, F. (2007). "Service blueprinting: a practical tool for service innovation." Centre for Services Leadership, Arizona State University.
- Chenitz, W.C. (1983). Entry into a nursing home as status passage: A theory to guide nursing practice. *Geriatric Nursing*, 4, 92-97.
- Dragaset, J. (2004). "The importance of activities of daily living and social contact for loneliness: a survey among residents in nursing homes." *Scandinavian Journal of Caring Sciences*, 18, 65-71.
- Ellis, J.M. (2010). "Psychological transition into a residential care facility: older people's experiences." *Journal of Advanced Nursing* 66(5), 1159-1168.
- Fogg, B.J. (2009). "A behavior model for persuasive change." Persuasive Technology Lab, Stanford University.
- Holmen, K. & Furukawa, H. (2002). "Loneliness, health and social network among elderly people—a follow-up study." *Archives of Gerontology and Geriatrics*, 35, 261–274.
- Porter, E.J., & Clinton, J.F. (1992). "Adjusting to the nursing home." *Western Journal of Nursing Research*, 14, 464-481.
- Nicole M. (2013). "Caring transitions sorts through 'emotional clutter' of senior moving, downsizing and estate sales." Retrieved from <http://caringtransitions.com/>
- Townsend, P. (1957). *The family life of old people*. Routledge and Kegan Pal, London.
- Weiss R.S. (1973). "Loneliness: the experience of emotional and social isolation." The Massachusetts Institute of Technology, Cambridge, MA.
- Vertelney, L. Curtis, G. (1990). "Storyboards and sketch prototypes for rapid interface visualisation." CHI Tutorial.
- Chen, C. (2012). Printer icon. Retrieved from <http://Thenounproject.com>
- Coscovelnita, A.. (2013). Group icon. Retrieved from <http://Thenounproject.com>
- factor[e] design initiative. (2013). Map Icon. Retrieved from <http://Thenounproject.com>
- factor[e] design initiative. (2012). Brochure Icon. Retrieved from <http://Thenounproject.com>
- Fuller, A. (2013). Person Icon. Retrieved from <http://Thenounproject.com>
- Kirzin, E. (2012). Address Book Icon. Retrieved from <http://Thenounproject.com>
- McPherson, L. (2013) Person Icon. Retrieved from <http://Thenounproject.com>
- Valdivia, A. (2012). Computer Icon. Retrieved from <http://Thenounproject.com>
- Unknown Designer. (1982). Telephone Icon. Retrieved from <http://Thenounproject.com>
- Unknown Designer. (2010). Calendar Icon. Retrieved from <http://Thenounproject.com>

